



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2011-0115; Directorate Identifier 2010-NE-40-AD]

RIN 2120-AA64

Airworthiness Directives; Turbomeca S.A. Turboshift Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to supersede an existing airworthiness directive (AD) that applies to certain Turbomeca S.A. Arriel 2B and 2B1 turboshaft engines. The existing AD currently requires accomplishment of the TU166 modification. Since we issued that AD, we became aware of an accident involving an engine in-flight shutdown on a twin-engine helicopter powered by two Arriel 2S2 engines. This proposed AD would add the Arriel 2S2 engine to the applicability of engines requiring the TU166 modification with a different compliance time. We are proposing this AD to prevent rupture of a gas generator (GG) turbine blade, which could result in an uncommanded in-flight shutdown and a forced landing or accident.

DATES: We must receive comments on this proposed AD by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this AD, contact Turbomeca, 40220 Tarnos, France; phone: 33 (0)5 59 74 40 00; telex: 570 042; fax: 33 (0)5 59 74 45 15. You may review copies of the referenced service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Rose Len, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7772; fax: 781-238-7199; e-mail: rose.len@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2011-0115; Directorate Identifier 2010-NE-40-AD” at the

beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

On June 14, 2011, we issued AD 2011-13-05, Amendment 39-16728 (76 FR 40222, July 8, 2011) for Turbomeca S.A. Arriel 2B and 2B1 turboshaft engines not modified by the TU166 modification. That AD requires accomplishment of the TU166 modification when the GG turbine is replaced or when the engine or Module M03 is going through overhaul or repair, or within 1,300 cycles-in-service after the effective date of that AD, whichever occurs first. That AD resulted from several cases of GG turbine blade rupture occurring in service on Arriel 2 twin-engine powered helicopters, and one case on a single-engine powered helicopter. We issued that AD to prevent rupture of a GG turbine blade, which could result in an uncommanded in-flight shutdown and an emergency autorotation landing or accident on single-engine powered helicopters.

Actions Since Existing AD Was Issued

Since we issued AD 2011-13-05, Amendment 39-16728 (76 FR 40222, July 8, 2011), an accident occurred on a Sikorsky S-76C++ twin-engine helicopter following an uncommanded in-flight shutdown of one of its Arriel 2S2 turboshaft engines. That engine did not have the TU166 modification incorporated. The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has superseded EASA AD 2010-0198, dated October 1, 2010, which we

reference in AD 2011-13-05. The EASA superseding AD, AD 2012-0054, dated April 2, 2012, adds the Arriel 2S2 turboshaft engine to the applicability for incorporating the TU166 modification with its own compliance time. This AD adds the Arriel 2S2 engine with a compliance time different than the Arriel 2B and 2B1 engines.

Relevant Service Information

We reviewed Turbomeca S.A. Alert Mandatory Service Bulletin (MSB) No. A292 72 3166 Version B, dated September 20, 2010, and Alert MSB No. A292 72 4166 Version A, dated March 23, 2012. The Alert MSBs describe procedures for accomplishing the TU166 modification.

FAA's Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would retain all of the requirements of AD 2011-13-05, Amendment 39-16728 (76 FR 40222, July 8, 2011) except it would reduce the compliance time for the Arriel 2B and 2B1 engines to account for the effective date of that AD. This proposed AD would add the Arriel 2S2 turboshaft engine to the AD applicability and would add accomplishing the TU166 modification to those engines with a compliance time different from the compliance time for the Arriel 2B and 2B1 engines.

Costs of Compliance

Based on the service information, we estimate that this proposed AD would affect about 542 products of U.S. registry. We also estimate that it would take about 60 work-hours per product to comply with this AD. The average labor rate is \$85 per work-hour. Required parts would cost about \$3,900 per product. Based on these figures, we estimate the cost of the AD on U.S. operators to be \$4,878,000.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We have determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that the proposed regulation:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by removing airworthiness directive (AD) 2011-13-05, Amendment 39-16728 (76 FR 40222, July 8, 2011), and adding the following new AD:

Turbomeca S.A.: Docket No. FAA-2011-0115; Directorate Identifier 2010-NE-40-AD.

(a) Comments Due Date

The FAA must receive comments on this AD action by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD supersedes AD 2011-13-05, Amendment 39-16728 (76 FR 40222, July 8, 2011).

(c) Applicability

This AD applies to Turbomeca S.A. Arriel 2B, 2B1, and 2S2 turboshaft engines not modified by TU166 modification.

(d) Unsafe Condition

This AD was prompted by reports of an accident involving a twin-engine helicopter powered by two Arriel 2S2 engines. We are issuing this AD to prevent rupture of a gas generator (GG) turbine blade, which could result in an uncommanded in-flight shutdown and a forced landing or accident.

(e) Compliance

Comply with this AD within the compliance times specified, unless already done.

(1) For Arriel 2B and 2B1 turboshaft engines, accomplish the TU166 modification in accordance with the instructions specified within Turbomeca Alert Mandatory Service Bulletin (MSB) No. A292 72 3166 Version B, dated September 20, 2010, when the GG Turbine is replaced or when the engine or Module M03 is going through overhaul or repair, or within 676 cycles-in-service (CIS) after the effective date of this AD, whichever occurs first.

(2) For Arriel 2S2 turboshaft engines, accomplish the TU166 modification in accordance with the instructions specified within Turbomeca Alert MSB No. A292 72 4166 Version A, dated March 23, 2012, when the GG Turbine is replaced or when the engine or Module M03 is going through overhaul or repair, or within 500 CIS after the effective date of this AD, whichever occurs first.

(f) Credit for Previous Actions

For Arriel 2B and 2B1 turboshaft engines, if before the effective date of this AD, you performed the TU166 modification using Turbomeca Alert MSB No. A292 72 3166 Version A, dated August 17, 2010, you met the requirements of this AD.

(g) Alternative Methods of Compliance (AMOCs)

The Manager, Engine Certification Office, may approve AMOCs for this AD. Use the procedures found in 14 CFR 39.19 to make your request.

(h) Related Information

(1) For more information about this AD, contact Rose Len, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7772; fax: 781-238-7199; e-mail: rose.len@faa.gov.

(2) European Aviation Safety Agency AD 2012-0054, dated April 2, 2012, also pertains to this AD.

(3) For service information identified in this AD, contact Turbomeca, 40220 Tarnos, France; phone: 33 (0)5 59 74 40 00; telex: 570 042; fax: 33 (0)5 59 74 45 15. You may review copies of the referenced service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. You may review copies of the referenced service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Issued in Burlington, Massachusetts, on May 25, 2012.

Pete A. White,
Manager, Engine & Propeller Directorate,
Aircraft Certification Service.

[FR Doc. 2012-13324 Filed 05/31/2012 at 8:45 am; Publication Date: 06/01/2012]